

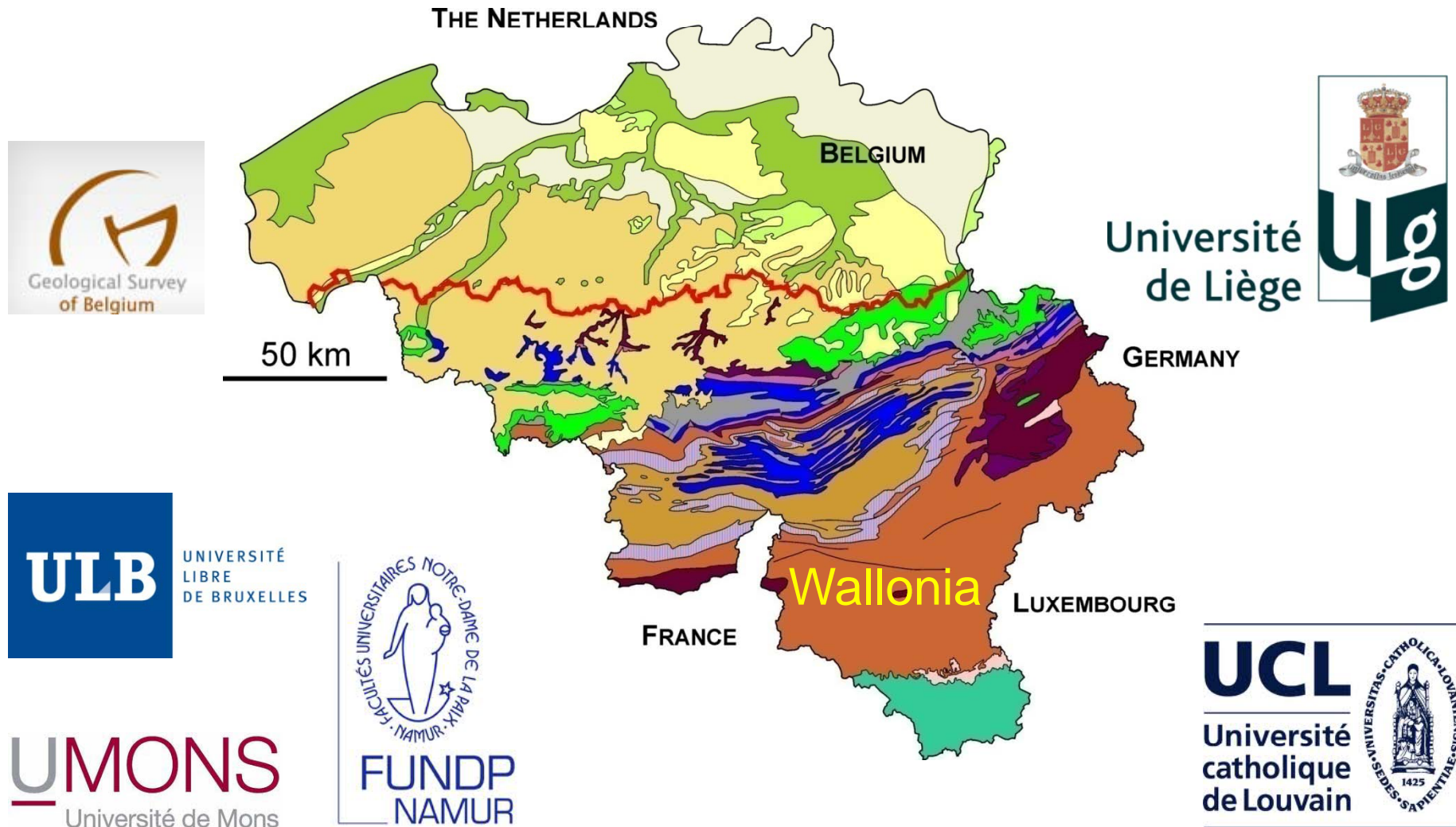
Applications of the new geological map of Wallonia

J.-M. Marion & B. Mottequin

Liège University
Animal and Human Palaeontology Unit

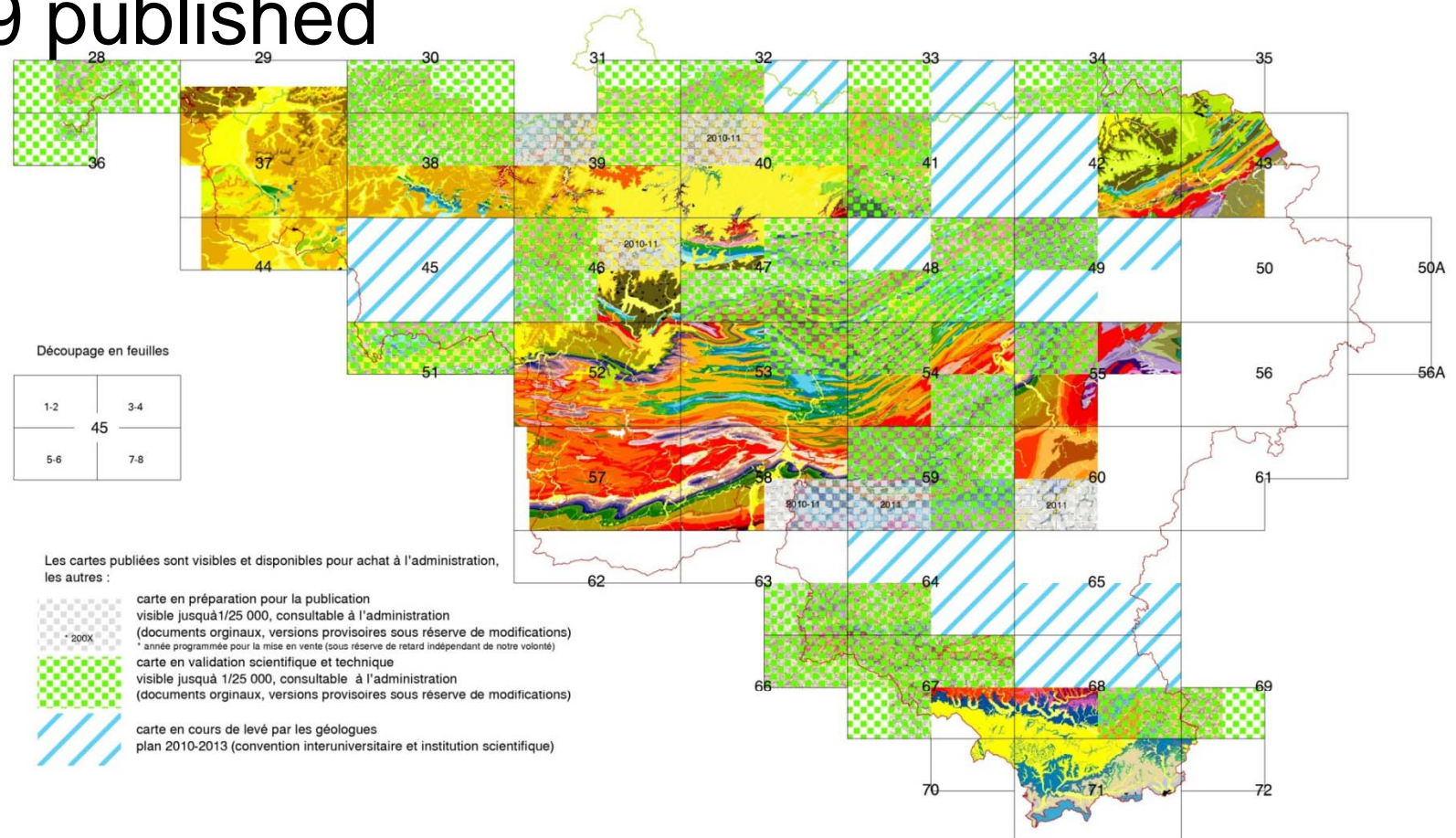
Liège, 14 October 2011

1. Introduction



2. Progress report

- 102 maps on 142 are completed
- 49 published

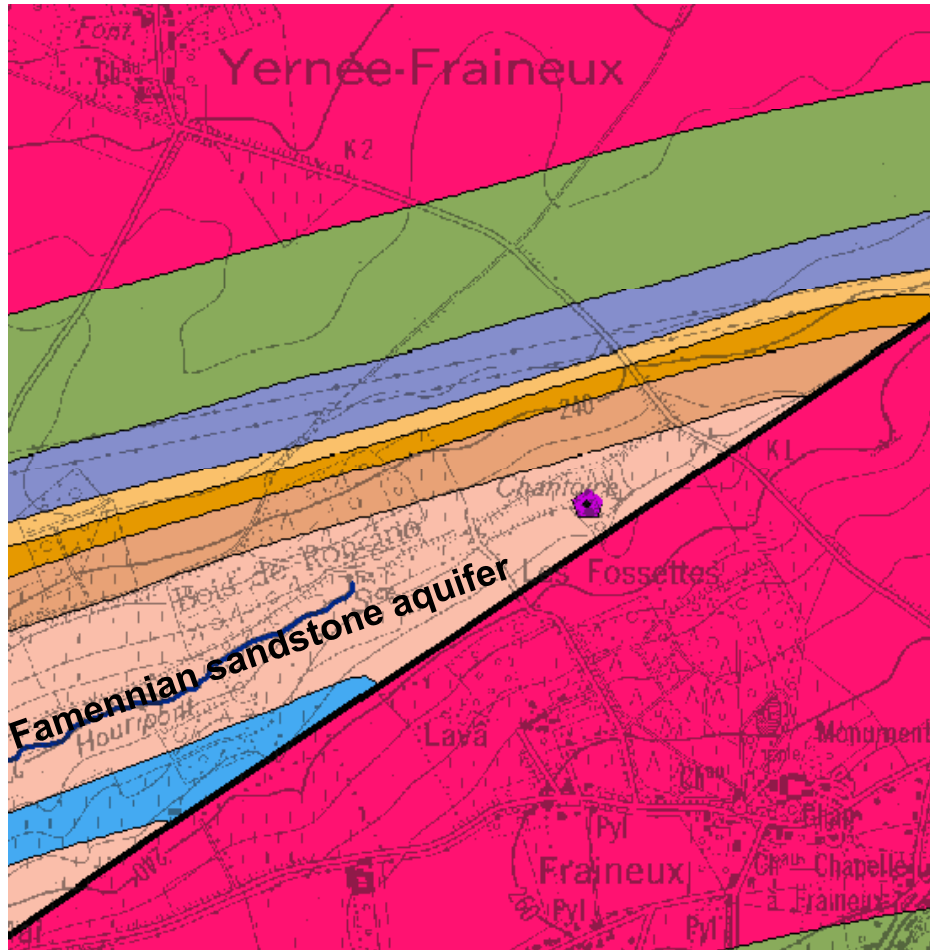


3. Applications

- Water resources management (water-catchments, hydrogeology, etc.)
- Mining
- Land-use planning (e.g., karstic hazards, implantation of windmills)
- Civil engineering

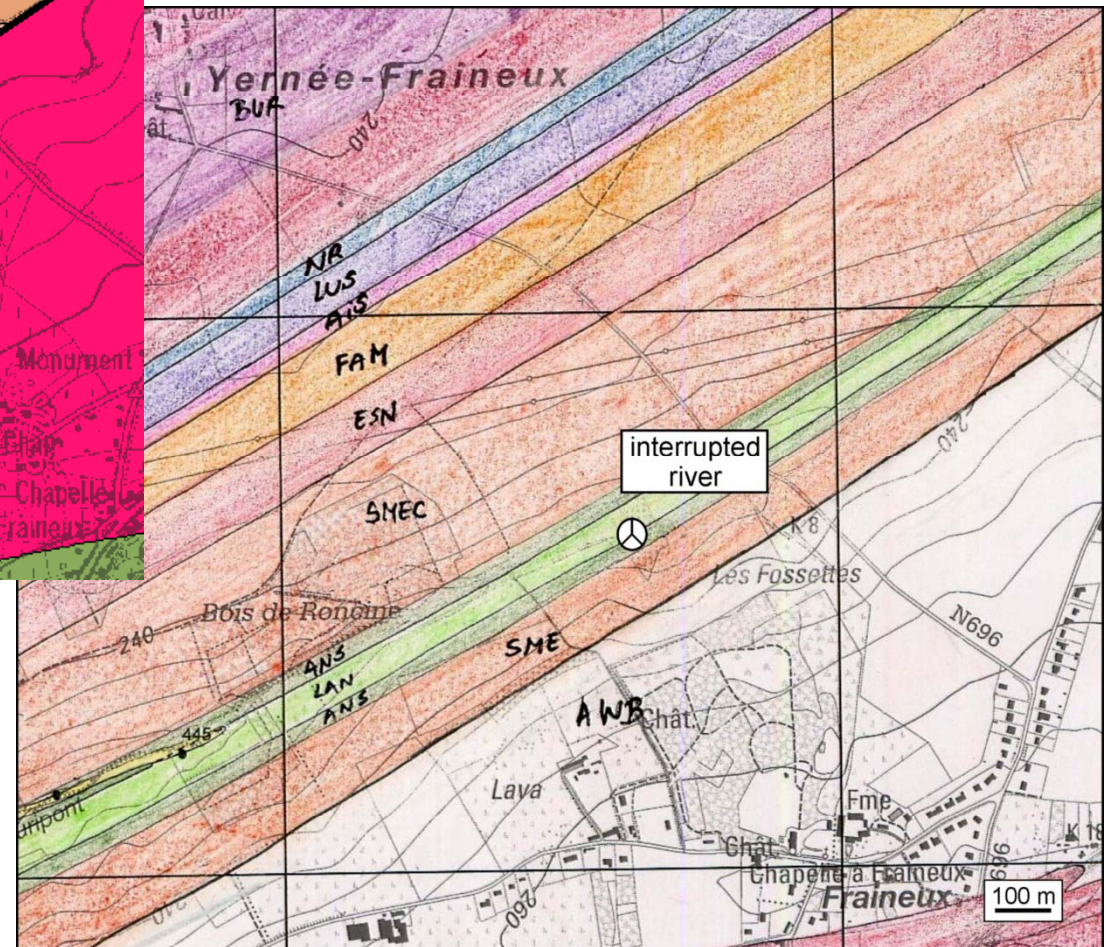
3a. Hydrogeology

Huy-Nandrin

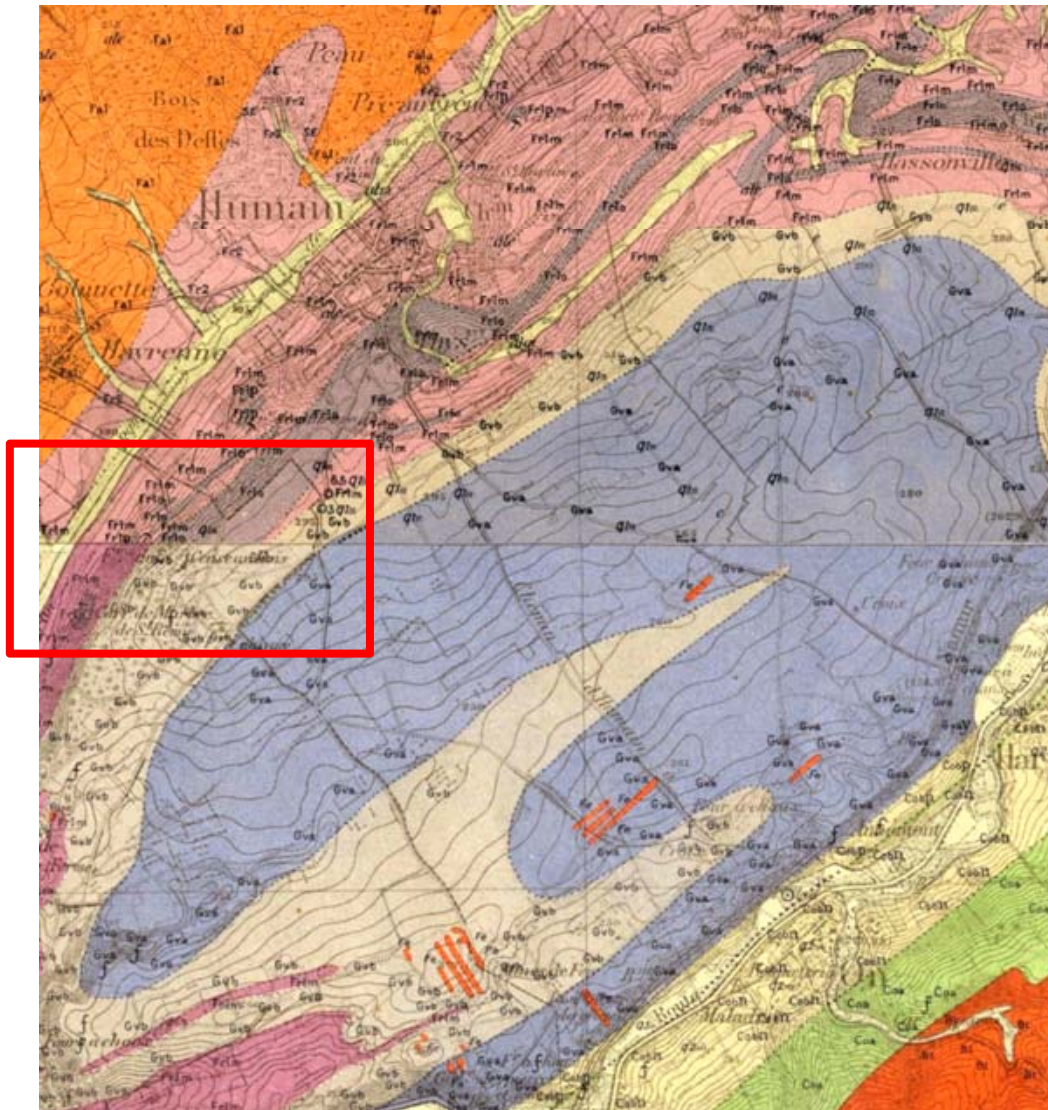


Hydrogeological map (Ruthy, 2011)
based on Dewalque et al. (1898)'s
geological map

Mottequin & Marion (submitted)



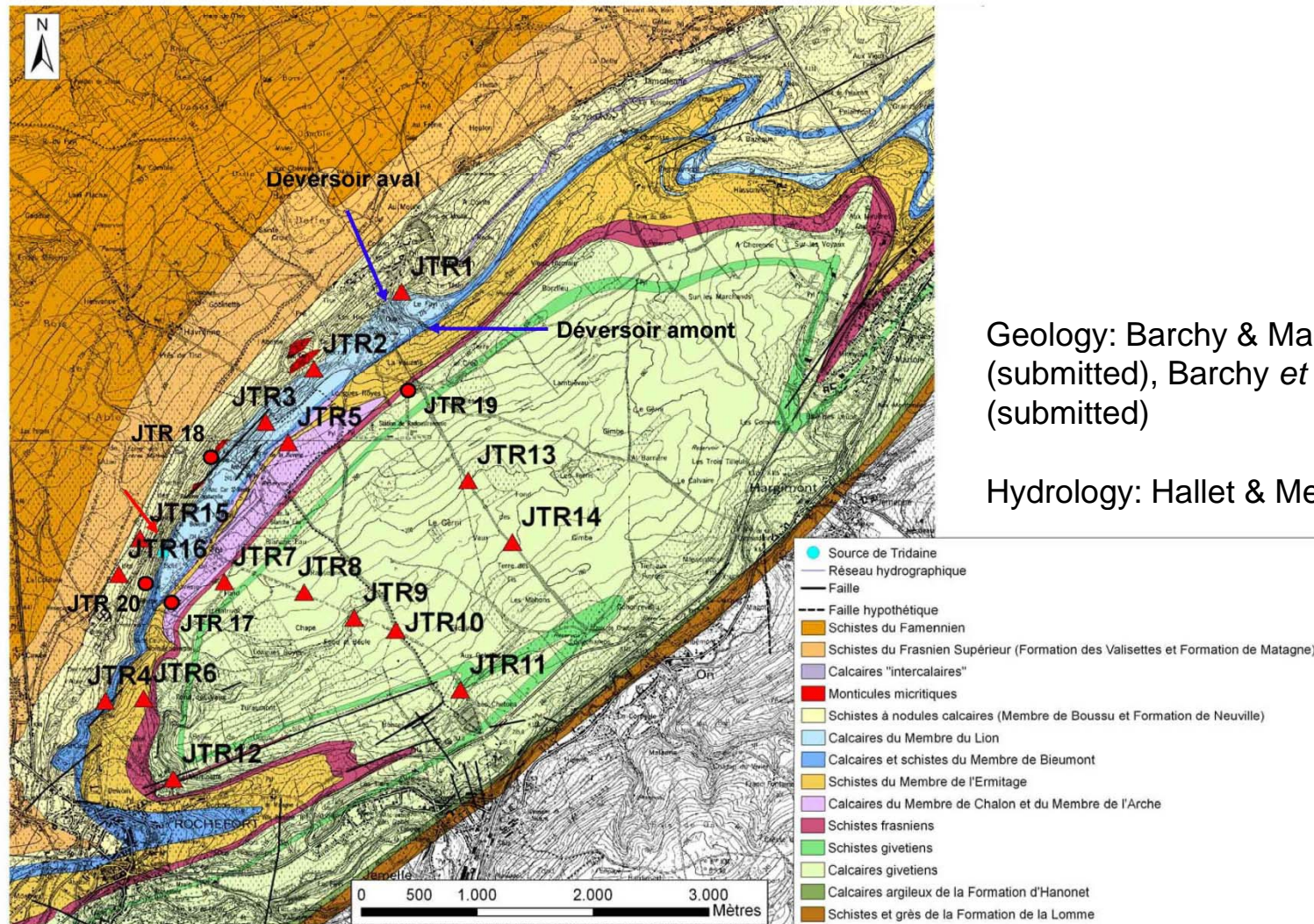
Gerny plateau



Aye-
Marche-en-Famenne
(Lohest & Forir, 1902)

Rocherfort-Jemelle
(Stainier, 1900)

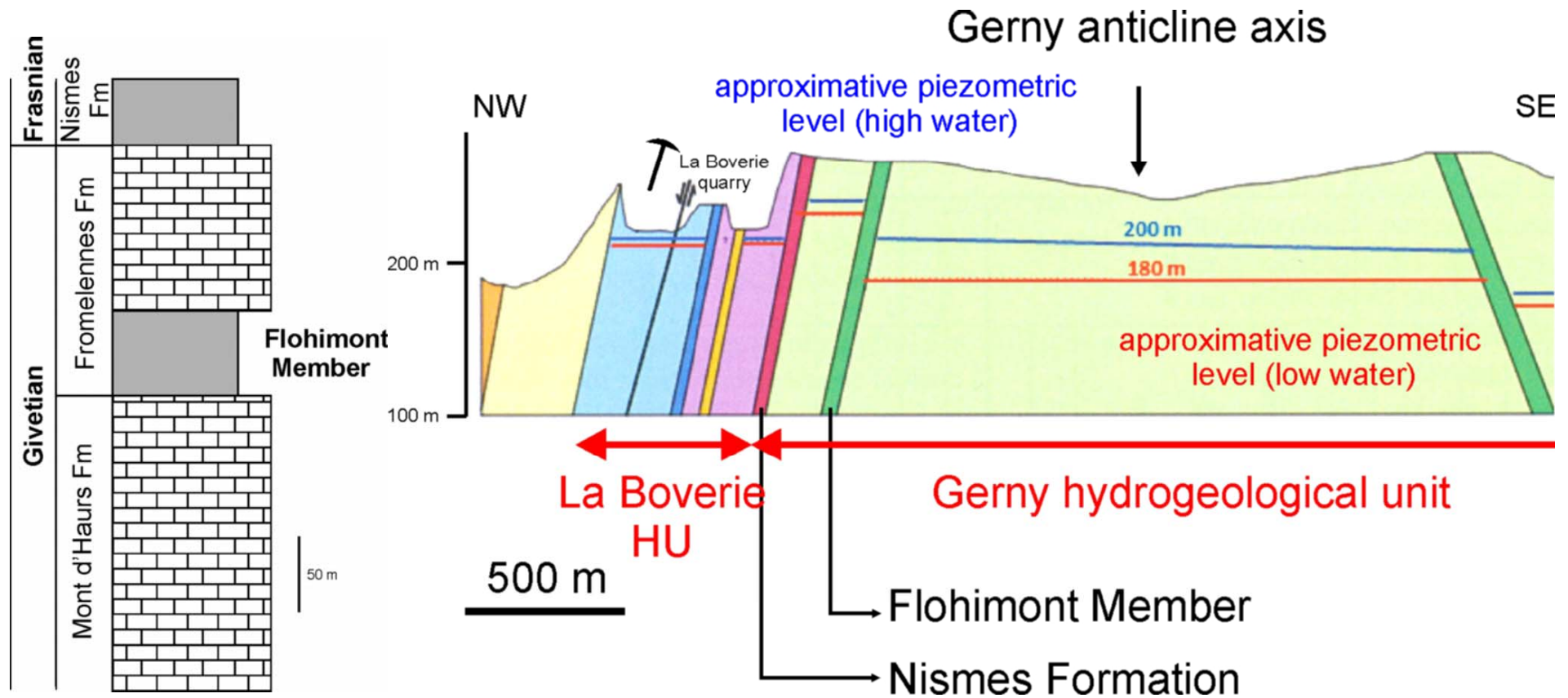
New geological map with hydrogeological data



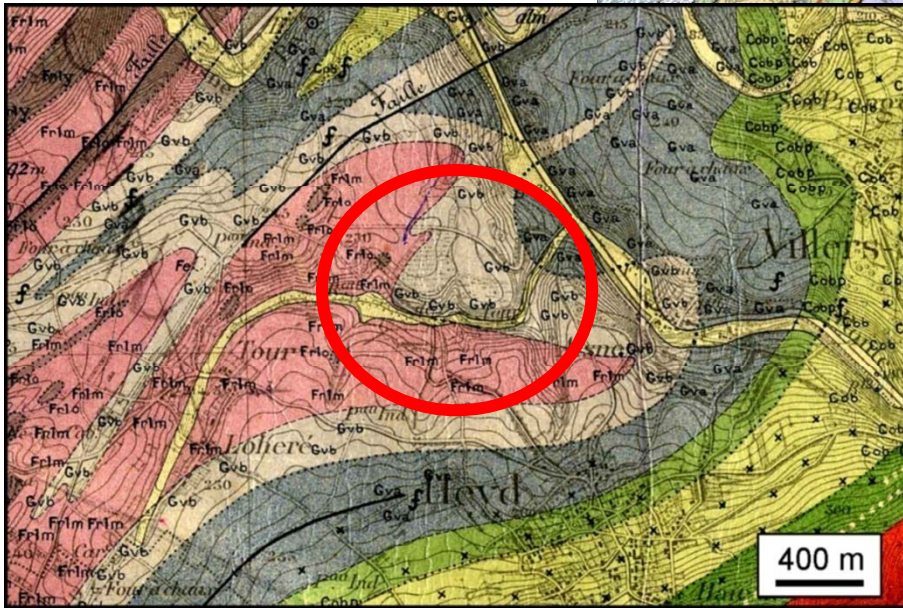
Geology: Barchy & Marion
(submitted), Barchy *et al.*
(submitted)

Hydrology: Hallet & Meus (2011)

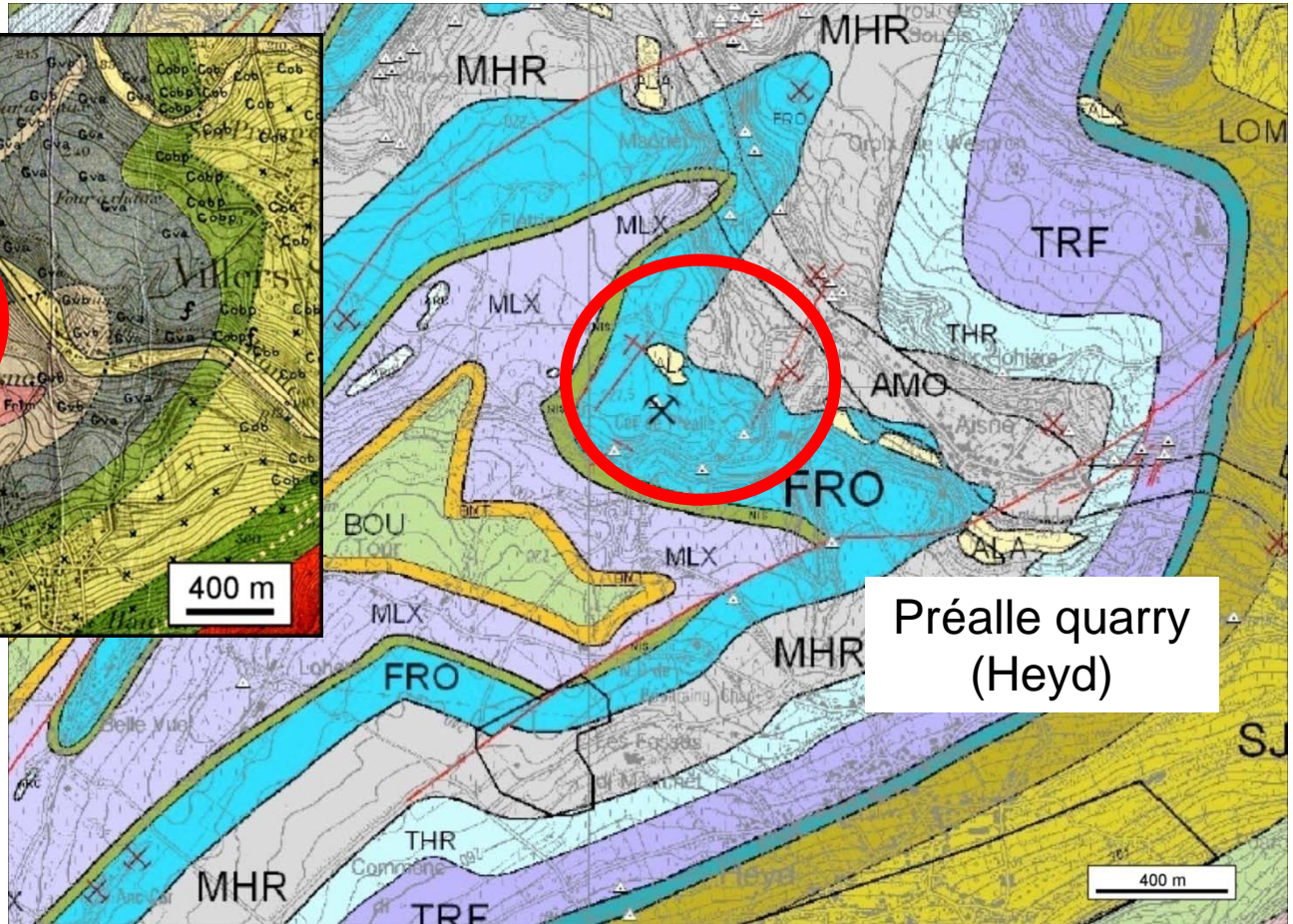
Schematic geological cross-section



3b. Mining



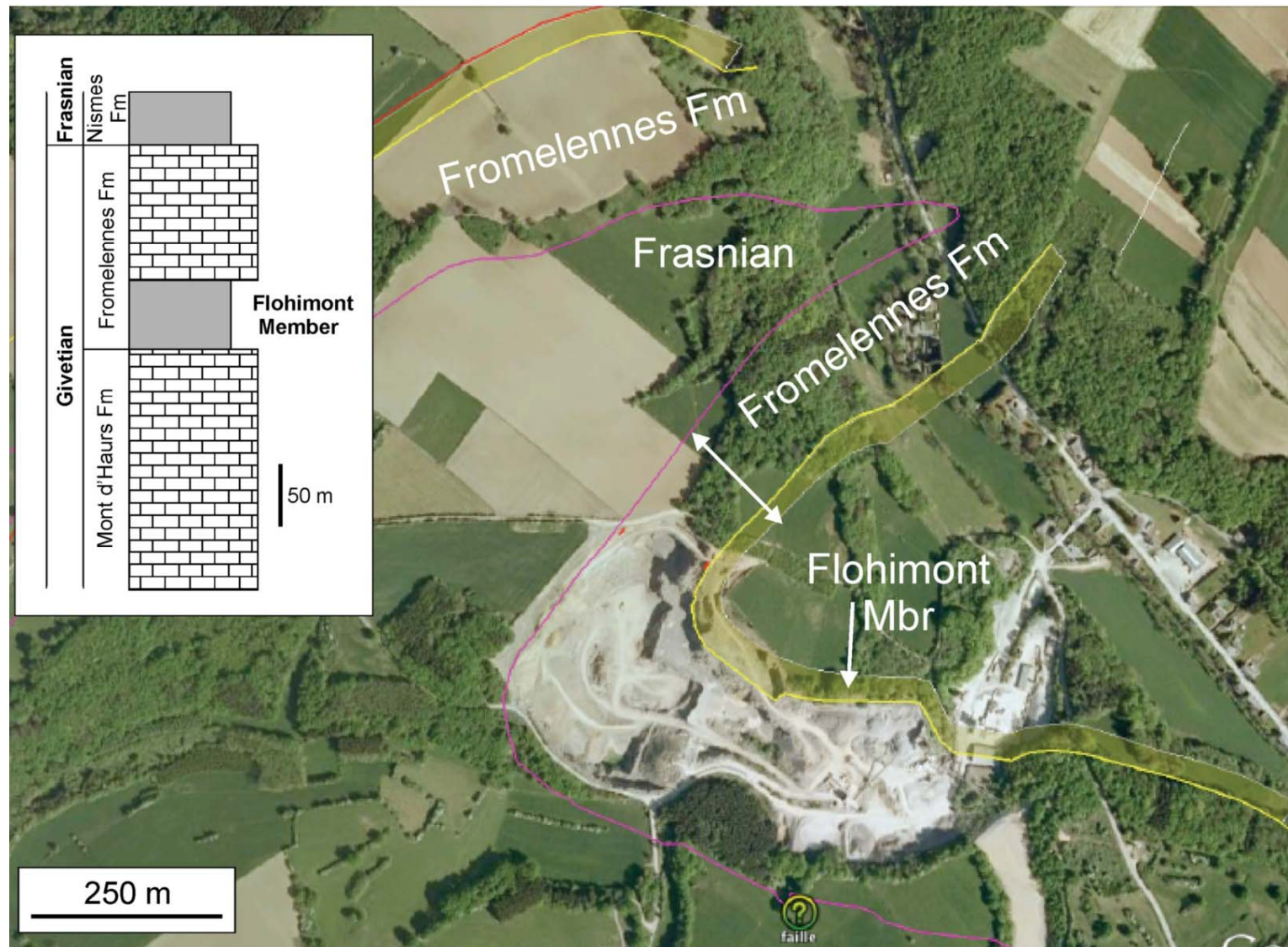
Stainier (1902)



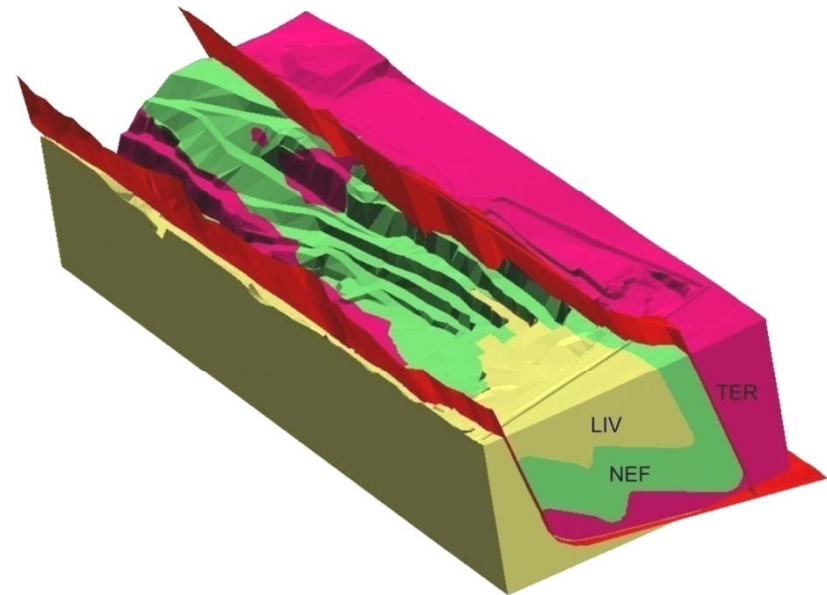
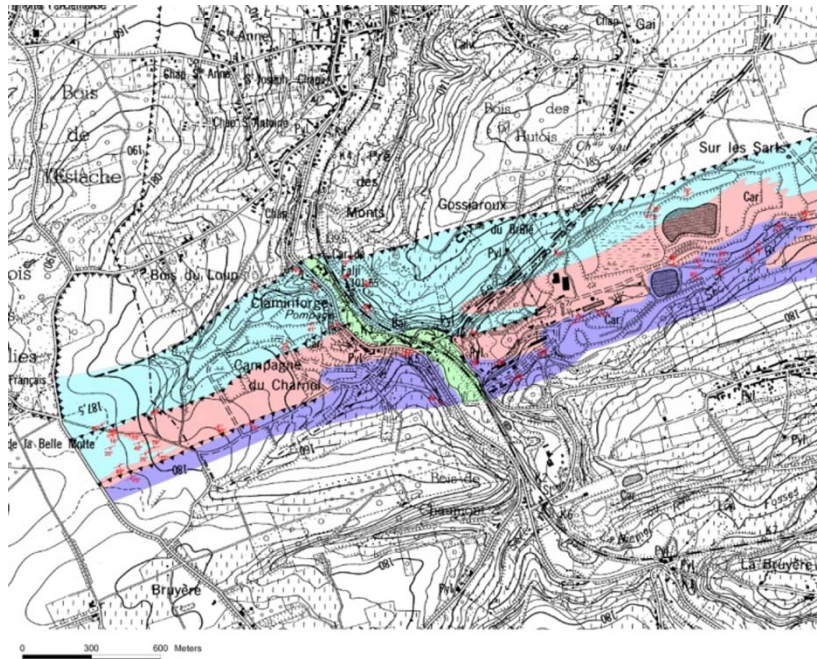
Préalles quarry (Heyd)

Barchy & Marion (submitted)

La Préalle quarry



Geological 3D modeling of deposits



Chevalier (2010)

3c. Geological hazards

- Quicksands
- Karstic collapses
- Mining risks
- Etc.

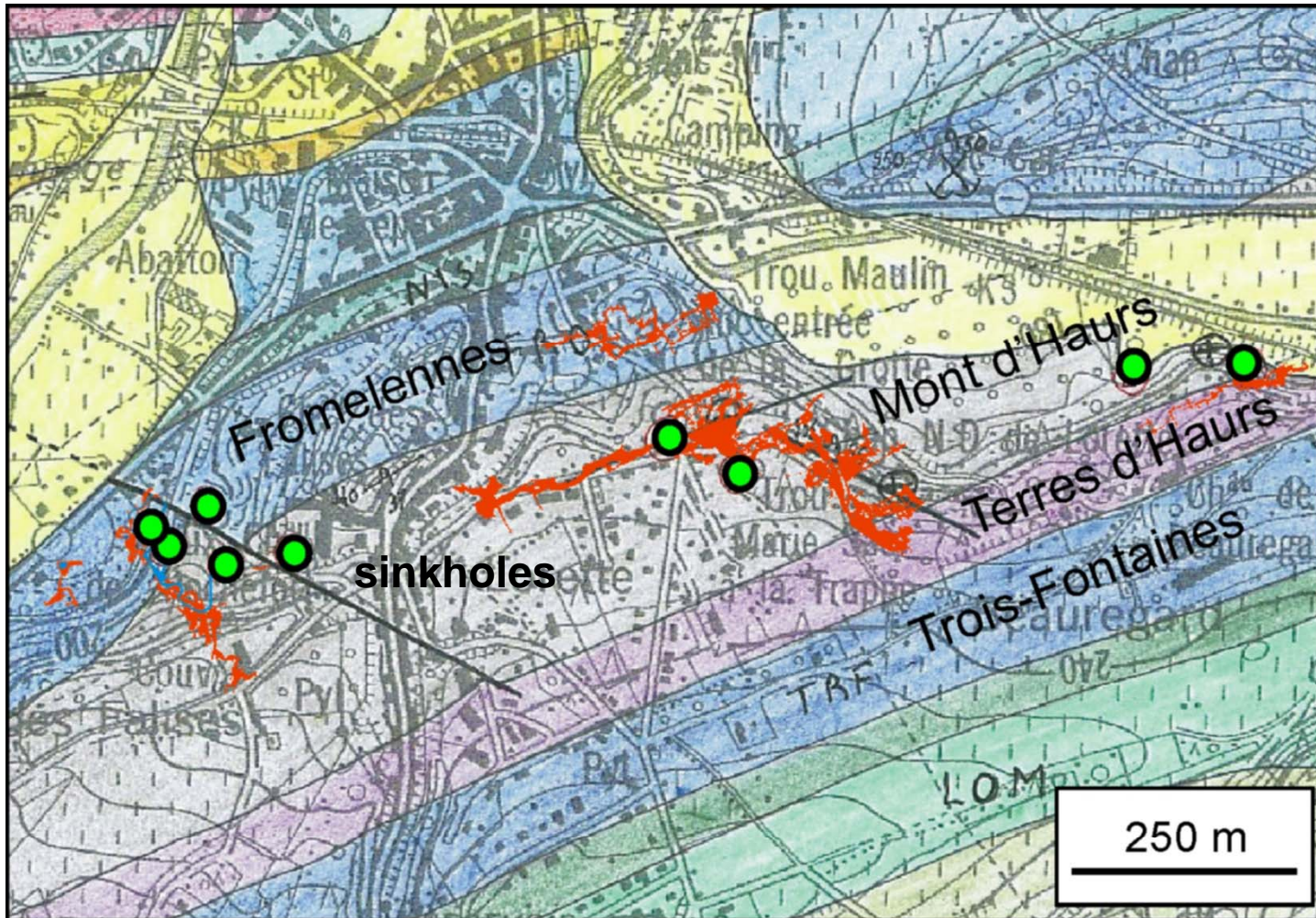
Quicksands

(Aachen and Vaals formations; Upper Cretaceous)

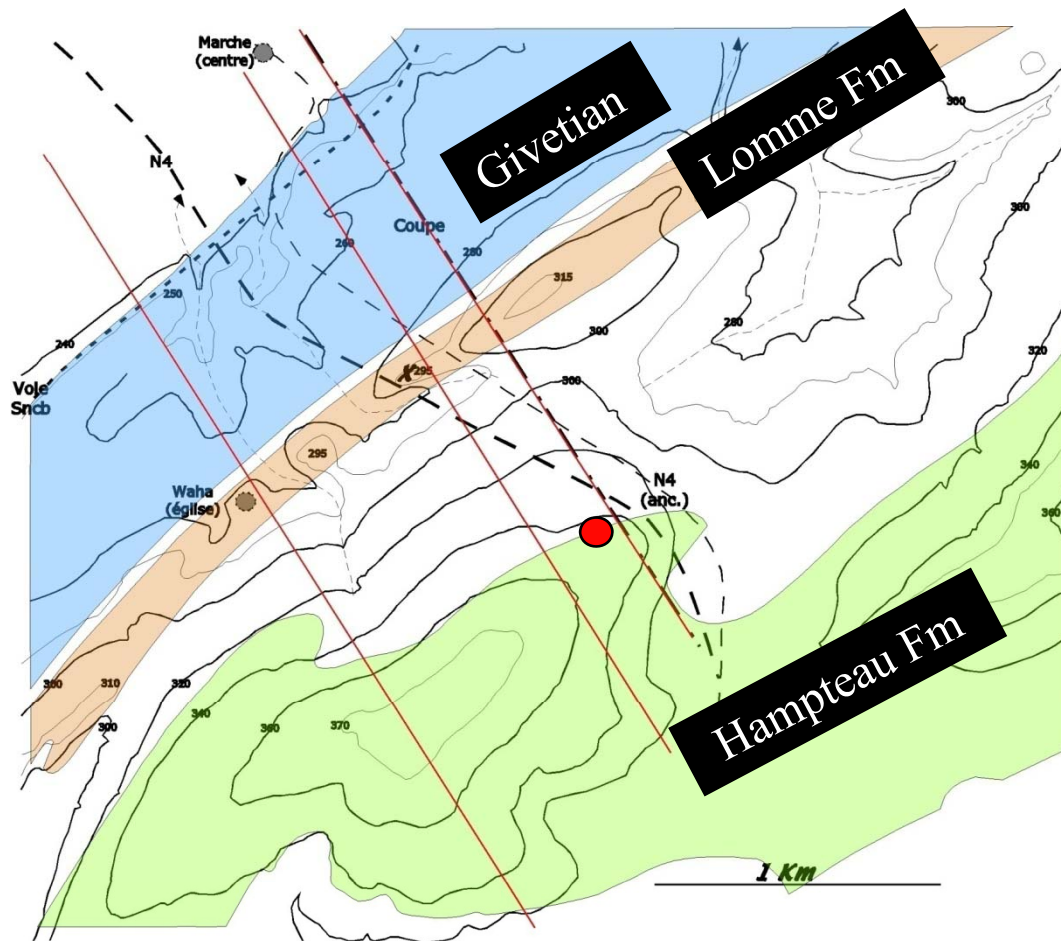


Barchy
&
Marion
(2000)

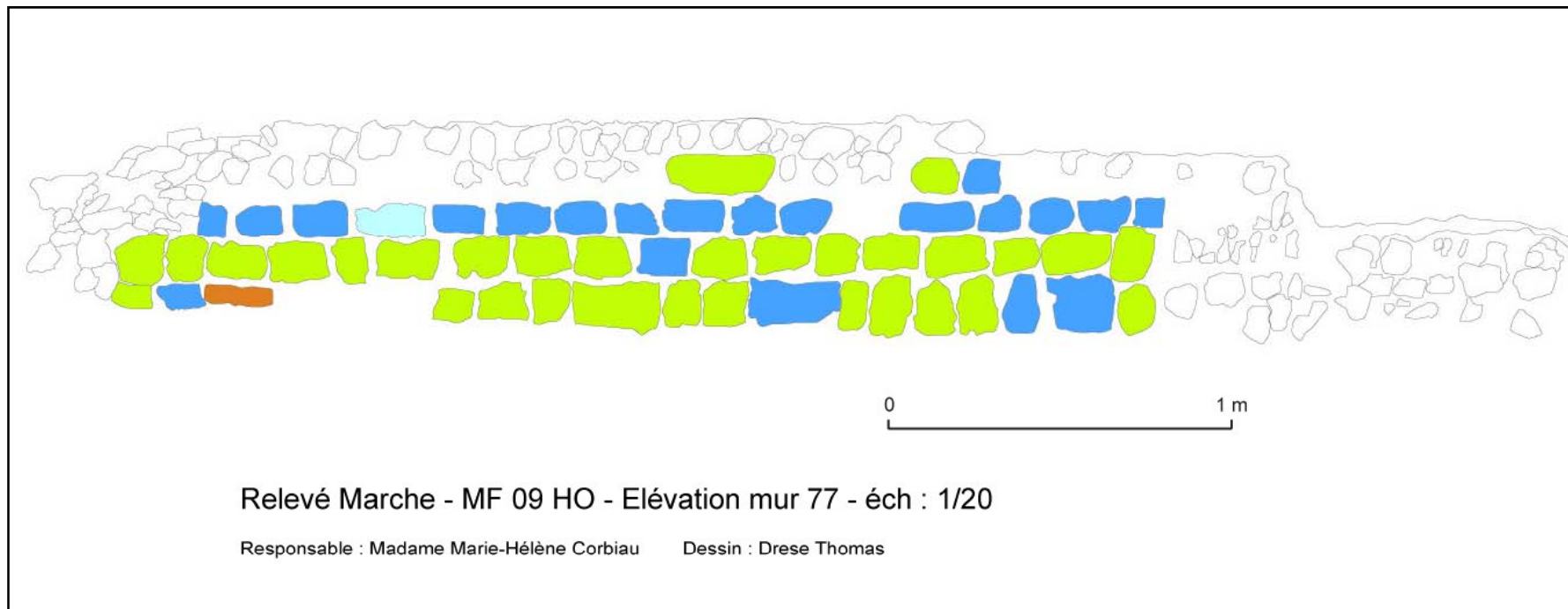
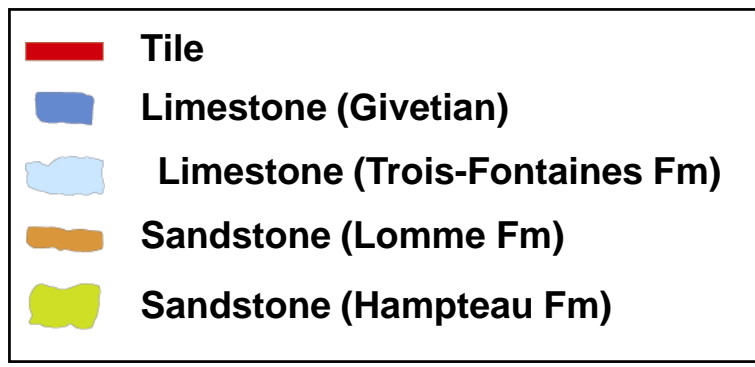
Lorette Cave (Rochefort)



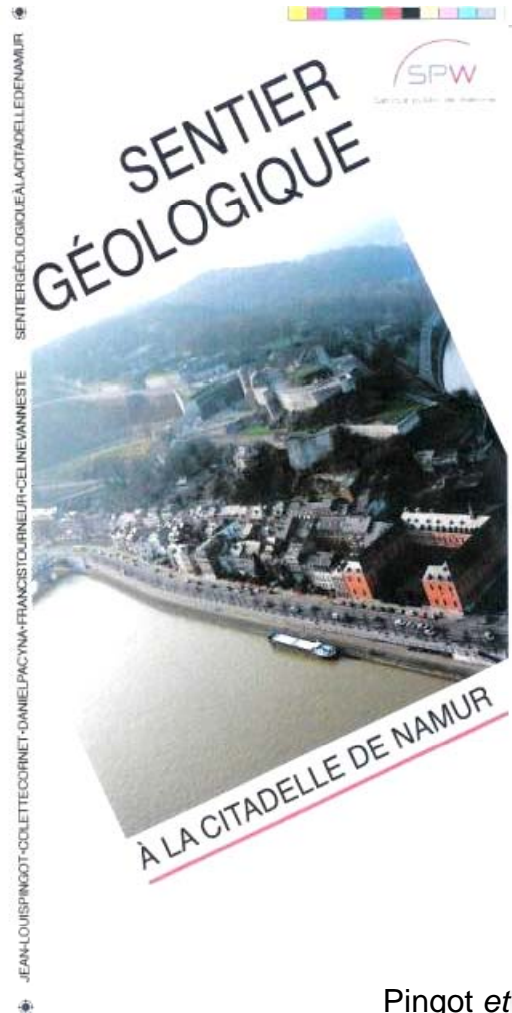
4. Archaeology



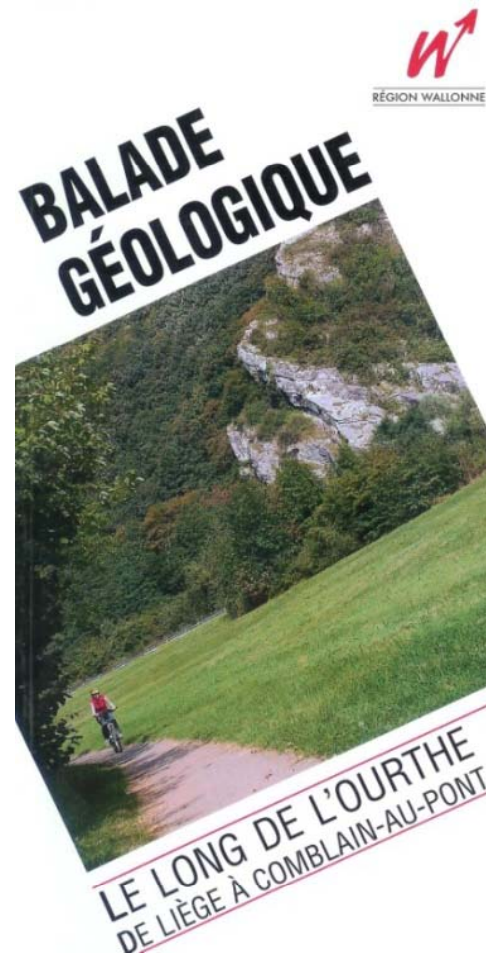
Tracing the origin and provenance of building stones in archaeological remains/historical monuments (e.g., Roman villa of Waha)



5. Geological tourism



Pingot *et al.* (2010)



Ek *et al.* (2004)

6. Geological map online

